

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

KAIST IP US LLC,

Plaintiff and Counterclaim-Defendant,

v.

SAMSUNG ELECTRONICS CO., LTD.;  
SAMSUNG ELECTRONICS AMERICA, INC.;  
SAMSUNG SEMICONDUCTOR, INC.;  
SAMSUNG AUSTIN SEMICONDUCTOR, LLC;  
GLOBALFOUNDRIES, INC.;  
GLOBALFOUNDRIES U.S. INC.; and  
QUALCOMM INC.,

Defendants and Counterclaim-Plaintiffs.

Case No.: 2:16-cv-01314-JRG-RSP

**JURY TRIAL DEMANDED**

Honorable Rodney Gilstrap

*FILED UNDER SEAL*

**OPPOSITION BY KAIST IP US TO DEFENDANTS' MOTION TO EXCLUDE  
OPINION AND TESTIMONY OF DAMAGES EXPERT ROY WEINSTEIN**

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## I. INTRODUCTION

In this case, Mr. Weinstein uses hedonic regression analysis, a recognized and established statistical tool, to determine the incremental economic benefit to Samsung and Qualcomm associated with each 1% increase in processor speed and battery life in Samsung's mobile products. Mr. Weinstein's regression analysis is able to capture the incremental *economic benefit* associated with the infringement of the '055 Patent because KAIST IP US's technical experts, Dr. Kelin Kuhn (the only expert in this case who has ever implemented a commercial bulk FinFET transistor design) and David Witt (retired worldwide Director of Architecture at Texas Instruments, and the only expert in this case who has ever designed the processors at issue), first established the incremental *technical benefits* (*i.e.*, processor speed and battery life improvement) in Defendants' infringing products that are solely attributable to the '055 Patent.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>1</sup> Unless otherwise noted, all further exhibit citations are to the Declaration of Andrew Choung.

[REDACTED]

[REDACTED] *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1240 (Fed. Cir. 2011) (rejecting that “patentee’s profit expectation [as established by an earlier offer] must be a cap on the reasonable royalty” and holding that damages can properly be based instead on the “value of the benefit conferred to the infringer by use of the patented technology”).

[REDACTED]

[REDACTED]

[REDACTED]

**A. Mr. Weinstein's Profit Damages Opinions Are Properly Apportioned, Tied to the Benefits of the '055 Patent, and Reasonable**

3

(E.D. Tex. Sept. 10, 2017) (Payne, M.J.) (“Dr. Vander Veen’s mobile data pricing regression analysis adequately approximates the value of the underlying technology, even if the approximation is not perfect.”); *St. Clair Intellectual Prop. Consultants v. Acer, Inc.*, 935 F. Supp. 2d 779, 782 (D. Del. 2013). (“[The expert] applies a generally accepted statistical method, hedonics, to estimate the value of battery life using sufficient facts and data.”). The Fifth Circuit has recognized that regression analysis can be used to “understand[] the relationship between a dependent and an explanatory variable,” and that “this is a powerful tool when the trier of fact must determine whether a causal link exists.” *United States v. Valencia*, 600 F.3d 389, 427 (5th Cir. 2010).

**1. Defendants’ Criticism of Mr. Weinstein’s Variable Selection Is Not Grounds for *Daubert* Exclusion**

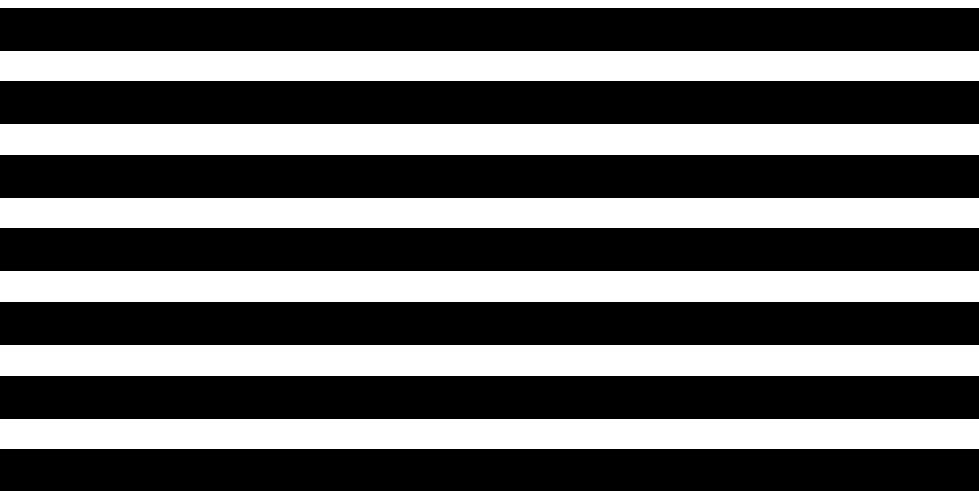
Defendants’ various objections about Mr. Weinstein’s decisions to include or not include variables in his hedonic regression model are classic examples of critiques that go only to the weight of an expert’s regression-related testimony. For example, the Supreme Court held in *Bazemore v. Friday* that, “[w]hile the omission of variables from a regression analysis may render the analysis less probative . . . [n]ormally, failure to include variables will affect the analysis’ probativeness, not its admissibility.” 478 U.S. 385, 400 (1986) (emphasis added).

Numerous courts, including the Fifth Circuit, have come to the same conclusion. *E.g.*, *Siler-Khodr*, 261 F.3d at 547 (accepting regression analyses despite their omission of variables such as “faculty salaries by medical sub-specialty” and “individual conduct”); *Manpower, Inc. v. Ins. Co. of Pa.*, 732 F.3d 796, 808 (7th Cir. 2013) (reversing district court’s exclusion of a regression analysis because “[w]hat [the court] took issue with was [the expert]’s choice of data—variables—to employ”); *Wis. Alumni Research Found. v. Apple*, 135 F.Supp.3d 865, 884 (W.D. Wis. 2015) (“[Defendant] faults [the expert]’s judgment on which and how many



variables to include, but this criticism also goes to the weight the jury may place on [the expert]’s testimony and not on the admissibility of his regression analysis.”); *Robocast, Inc. v. Apple Inc.*, No. 11-235, 2014 WL 173186, at \*1 (D. Del. Jan. 14, 2014) (“Mr. Sims chose not to explicitly incorporate certain variables, which might offer an alternative explanation of the data. Whether he should or should not have accounted for these variables is a question that goes to the weight of the testimony, not its admissibility, and is properly left to the jury.”).

(a) Mr. Weinstein's Selected Variables Are Reasonably Tied to the Facts of the Case and to Consumer Demand



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

\_\_\_\_\_

[illegible]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Defendants' reliance on *Stragent, LLC v. Intel Corp.*, No. 6:11-cv-421, 2014 U.S. Dist. LEXIS 106167 (E.D. Tex. Mar. 6, 2014), is misplaced. In *Stragent*, the court excluded an expert's regression analysis in part because "his report does not say which features he ultimately chose to treat as variables in his analysis or explain the methodology he used to select those variables." *Stragent, LLC v. Intel Corp.*, 2014 U.S. Dist. LEXIS 194938, at \*6 (E.D. Tex. Mar. 12, 2014). That is plainly not the situation here. [REDACTED]

[REDACTED]

[REDACTED]

Importantly, the *Stragent* court's criticism was not of regression analysis in general, but of *Stragent* expert's decision to adopt an impermissible "rule-of-thumb" estimate and arbitrarily

assign equal value to all 19 features with which the accused feature was bundled. *Stragent*, 2014 U.S. Dist. LEXIS 106167 at \*14-\*15; *Good Tech. Corp. v. MobileIron, Inc.*, 2015 U.S. Dist. LEXIS 7347, at \*22 (N.D. Cal. July 5, 2015) (“assigns equal value to each one”). In other words, *Stragent*’s expert used hedonic regression to come to conclusions about the value of all 19 features, and then arbitrarily divided that value by 19. *Id.* That is not the case here.

[REDACTED]

[REDACTED]

[REDACTED]

Further, Defendants’ contention that Mr. Weinstein has no “technical expertise” regarding the examined features also misses the point. For the underlying technical considerations of his analysis—[REDACTED]

[REDACTED]—Mr. Weinstein relies on Dr. Kuhn and Mr. Witt, as Rule 703 permits. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1321 (Fed. Cir. 2014) (“Consistent with Rule 703, patent damages experts often rely on technical expertise outside of their field when evaluating design around options or valuing the importance of the specific, infringing features in a complex device.”). In particular, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].<sup>4</sup>

But even if Defendants' criticisms made any sense, they are nonetheless criticisms that go to the weight of Mr. Weinstein's analysis, and no more. Each of the steps that Mr. Weinstein undertakes is directly tied to the facts of the case. Defendants' concerns can be addressed through cross-examination. *United States v. 14.38 Acres of Land*, 80 F.3d 1074, 1077 (5th Cir. 1996) ("[Q]uestions relating to the bases and sources of an expert's opinion affect the weight to be assigned that opinion rather than its admissibility."); *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 855–56 (Fed. Cir. 2010) ("Microsoft is correct that i4i's expert could have used other data in his calculations. The existence of other facts, however, does not mean that the facts used failed to meet the minimum standards of relevance or reliability.")

(b) Mr. Weinstein's Model Is Verifiable and Generally Accepted Within the Econometrics Community

Defendants' contention that "Mr. Weinstein's opinions have not and cannot be tested," Dkt. 225 at 6, is belied by Defendants' own expert, Dr. Becker, who stated clearly in both his supplemental expert report and his deposition that [REDACTED]

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<sup>4</sup> See, e.g., Ex. 28, Jim Frost, *Overfitting Regression Models: Problems, Detection, and Avoidance*, STATISTICS BY JIM (May 26, 2017), <http://statisticsbyjim.com/regression/overfitting-regression-models/>; Ex. 29, Dean Abbott & Will Dwinnell, *Why Overfitting Is More Dangerous than Just Poor Accuracy, Part I*, DATA MINING & PREDICTIVE ANALYTICS (May 1, 2014), <http://abbottanalytics.blogspot.com/2014/05/why-overfitting-is-more-dangerous-than.html>.

[illegible]

(c) Defendants Had Access to the Underlying Raw Data

Mr. Weinstein's regressions are based on *publicly accessible* databases. Ex. 1 ¶¶ 165-66 & nn.338-341. Defendants admit that nothing prevented them from procuring the underlying data themselves. Ex. 9 at 13:17-24; *id.* at 202:15-21; *id.* at 204:7-15. Further, the day after Defendants requested the raw data, KAIST IP US produced a file "containing the materials referenced in the Expert Report of Roy Weinstein." Ex. 19. Six days then elapsed without further comment from Defendants. Then, on February 15, Defendants again demanded the raw data, and KAIST IP US

responded immediately that the data file was in the February 9 production. Ex. 20. Upon further investigation, however, KAIST IP US discovered that the data file had failed to load into the February 9 link, and immediately produced it. Ex. 21.

Eight days after the February 15 production, Defendants indicated that they needed an additional “one-week extension for any supplemental or stand-alone report addressing the regression analysis.” KAIST IP US agreed, provided that Dr. Becker “strictly limit[ed] his supplement to the regression analysis data.” Ex. 22. Instead of complying with this stipulation, Dr. Becker withheld all of his discussion of regression until his supplemental report, despite admitting that most of it could have been included in his opening report. Ex. 9 at 379:19-380:6. Given this, KAIST IP US simply asked Defendants to move for leave to supplement, the same step Defendants required KAIST IP US to take. Defendant refused, no doubt to preserve its attempt to strike the supplemental report served by Mr. Witt.

## **2. Mr. Weinstein’s Damages Analysis Is Tied to the ’055 Patent and Fully Apportioned**

Defendants’ contentions that Mr. Weinstein’s opinions are inadmissible because they are not apportioned, “tied to the smallest saleable unit,” or tied to the ’055 Patent, Dkt. 225 at 8-10, again mischaracterize Mr. Weinstein’s analysis. Mr. Weinstein’s opinions carefully apportion the incremental value attributable to Defendants’ use of the ’055 Patent by relying on Dr. Kuhn, Mr. Witt, and Defendants’ own testimony and documents.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The first case cited by Defendants, *Ericsson, Inc. v. D-Link Sys.*, teaches that apportionment may be accomplished “in various ways—by careful selection of the royalty base to reflect the value added by the patented feature, where that differentiation is possible; by adjustment of the royalty rate so as to discount the value of a product’s non-patented features; or by a combination thereof.” 773 F.3d 1201, 1226 (Fed. Cir. 2014). Indeed, in *Ericsson*, the Federal Circuit affirmed a decision of a court in this district to admit the testimony of an expert who used the “value of end products” as a starting point, but apportioned down to the “market value of the contribution of the asserted patents to the end products.” *Ericsson Inc. v. D-Link Sys.*, No. 6:10-CV-473, 2013 U.S. Dist. LEXIS 110585, at \*55 (E.D. Tex. Aug. 6, 2013). The district court additionally noted that the fact that the expert used a *per-unit* royalty that does not fluctuate with the price of the end product, as Mr. Weinstein does in this case, “further illustrates

that [the expert] did not rely on the value of end products in his analysis.” *Id.* at \*56.

Defendants’ contention that Mr. Weinstein’s per-device royalties are not apportioned because they vary between three classes of devices, “even though all three devices contain the same accused technology,” misunderstands the facts. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### **3. Mr. Weinstein Properly Calculated Damages for Each Defendant**

KAIST IP US has separately accused Samsung, Qualcomm, and GlobalFoundries of patent infringement in this case, Dkt. 1, and the Federal Circuit has explained that each “separate and distinct” infringement “requires a separate evaluation of reasonable royalty damages.” *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1362 (Fed. Cir. 2006).

[REDACTED]

[REDACTED]

Further, it is well settled that a party that directs the use of an infringing process is liable for patent infringement. *Crowell v. Baker Oil Tools*, 143 F.2d 1003, 1004 (9th Cir. 1944) (“It is obvious that one may infringe a patent if he employ[s] an agent for that purpose or [has] the offending articles manufactured for him by an independent contractor.”); *FMC Corp. v. Up-*

*Right, Inc.*, 816 F. Supp. 1455, 1461 (N.D. Cal. 1993), *aff'd*, 21 F.3d 1073 (Fed. Cir. 1994) (“Under federal patent law, when infringement results from the participation and combined or successive action of several parties, those parties are joint infringers, and are jointly liable.”).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] As a result, a distinct damages award against Qualcomm is proper and necessary.

**B. Mr. Weinstein’s Cost Savings Analysis Is Properly Apportioned and Tied to the Incremental Benefits Provided by the ’055 Patent**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### III. CONCLUSION

For the foregoing reasons, the Court should deny Defendants' motion to exclude the opinions and testimony of KAIST IP US's expert Roy Weinstein (Dkt. 225).

Date: April 2, 2018

Respectfully submitted,

/s/ Andrew Y. Choung

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### **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a). As such, this notice was served on all counsel who have consented to electronic service, L.R. CV-5(a)(3)(A), on April 2, 2018.

/s/ Andrew Y. Choung  
Andrew Y. Choung

### **CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL**

The undersigned hereby certifies that, under L.R. CV-5(a)(7)(B), the foregoing document is filed under seal pursuant to the Court's Protective Order entered in this matter (Dkt. No. 54).

/s/ Andrew Y. Choung  
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